

### ABSTRACT

In accordance with the invention, an electronic circuit containing one or more magnetic devices is assembled by the steps of providing a substrate including an aperture and conductive coil extending peripherally around the aperture and bonding together two parts of a magnetic body extending through the aperture. The two parts have substantially planar mating surfaces, and the bonding is effected by securing one of the parts to the substrate, applying adhesive to the portion of its mating surface exposed within the aperture, and pressing the mating surface of the second part into contact with the mating surface of the first part. During pressing, the mating surfaces are rotated in a reciprocating fashion to spread the adhesive into a thin, highly uniform film. This process permits the formation in the cure operation of a high quality bond without clamping. It thus produces a high quality magnetic device without manual intervention and can be part of a fully automated process to fabricate a circuit assembly. In a preferred embodiment, the substrate includes auxiliary apertures for receiving corresponding protrusions from a first part in the form of an E core and the mating surface of the E core extends through the coil aperture where it is bonded to a second part in the form of a flat core.

BEST AVAILABLE COPY